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U.S. Army

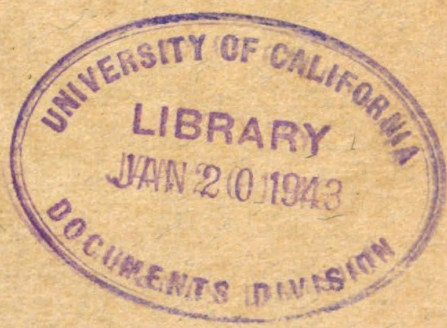
WAR DEPARTMENT

TECHNICAL MANUAL,

QUARTERMASTER STERILIZATION

COMPANY,

December 3, 1942



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WAR DEPARTMENT,
WASHINGTON, December 3, 1942.

QUARTERMASTER STERILIZATION COMPANY

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1. **Function.**—Mobile sterilization companies are used in the rest areas of the theater of operations in connection with mobile laundry companies and in the communications zone as part of a quartermaster salvage repair battalion. They are charged with the sterilization of infested and salvaged clothing, bathing of infested men, and the issue of new or reconditioned clothing to these men.

2. **Organization.**—The mobile sterilization company is composed of 156 enlisted men and three officers including a captain as commanding officer. The company is divided into company headquarters, supply and salvage section, and two sterilization platoons. Each sterilization platoon is composed of a platoon headquarters and two sterilization sections. Two firemen in each sterilization platoon are also chauffeurs for the trailer prime movers.

3. **Operating capacity.**—Each sterilization section can process 100 men per hour or 400 men per hour per company.

4. **Equipment.**—*a.* Assigned to company headquarters are one trailer, 1-ton, 2-wheel, cargo; one truck, 1/4-ton; one truck, 3/4-ton, weapon carrier, and one truck, 2 1/2-ton, cargo.

b. Assigned to the supply and salvage section are one trailer, 1-ton, 2-wheel, cargo and one truck, 2 1/2-ton, cargo.

c. Assigned to platoon headquarters are one trailer, 1-ton, 2-wheel, cargo and one truck, 2 1/2-ton, cargo.

*This manual supersedes Tentative TM 10-640, February 19, 1941.

d. Assigned to each sterilization section are one truck, 4- to 5-ton 4 x 4 tractor, and one semitrailer, two-wheel, van type, as illustrated in figure 1, on which is mounted the following equipment:

- 1 sterilizer.
- 1 boiler, 30 HP, with oil burner.
- 1 hot water generator.
- 12 shower heads.
- 2 sets duck tubing with canvas sides.
- 1 water pump, portable.
- 1 water pump.

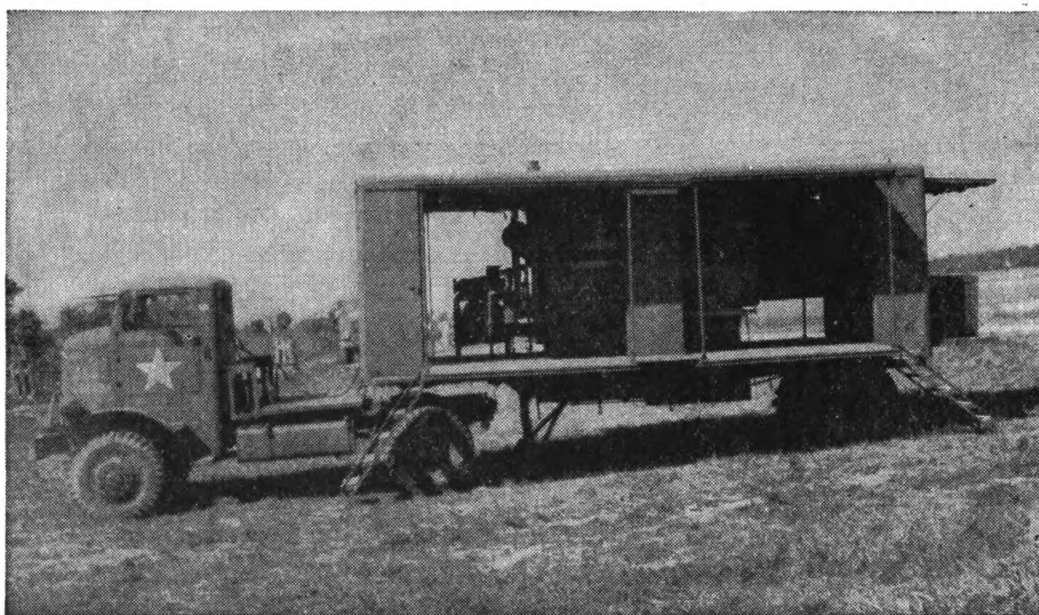


FIGURE 1.—Semitrailer, two-wheel, van type.

- 1 ignition and light generator.
- 1 gasoline engine.
- 1 fuel oil tank, 40-gallon.
- 1 gasoline tank, 5-gallon.
- 1 set spare parts.
- 1 set tools.

Also furnished with each semitrailer are the following:

- 400 feet hose, drain, 1½-inch.
- 175 feet hose, suction, 1½-inch.

5. Company supplies.—The following items are issued to each sterilization company as supplies:

400 nets, laundry, 24- by 30-inch.

400 pins, whale (net).

400 bags, canvas, valuable, with identification tags.

6. Operation in rest areas with mobile laundry company.—

a. Each sterilization and bath section and accompanying tentage shall be set up as shown on figure 2. The semitrailers should be parked on fairly level ground near a source of water. The dolly wheels should be lowered to take the weight of the front end, rear wheels chocked front and back, and the prime mover disconnected. Trailer sides and rear should be opened and jacks in each corner should be placed in position and the trailer leveled, care being exercised not to take all the weight from the rear axle and dolly wheels.

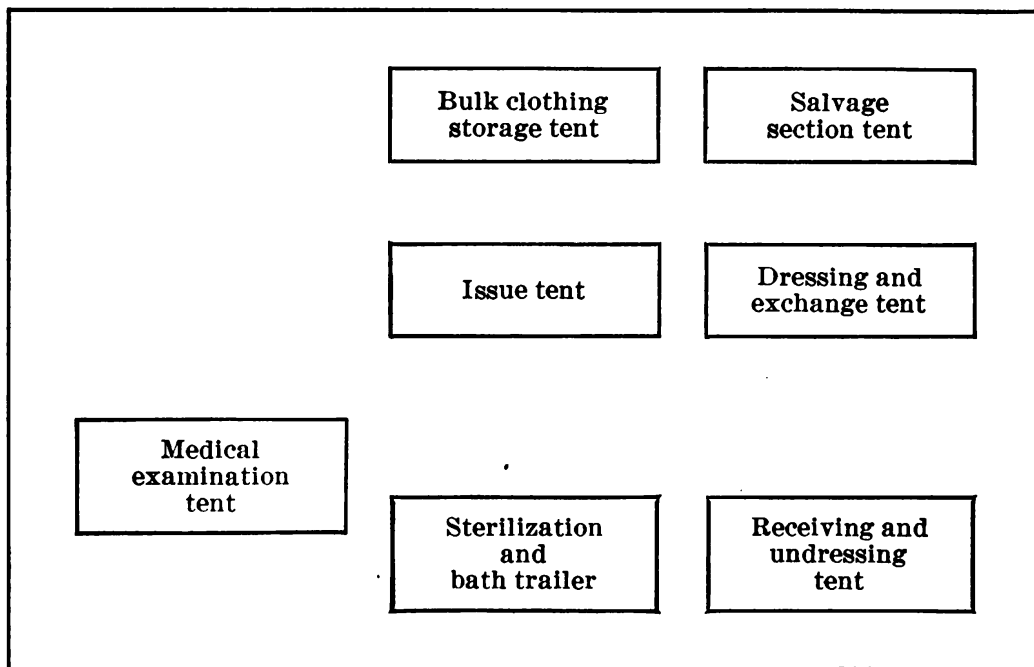


FIGURE 2.—Set-up of sterilization and bath section.

b. Set stack in place. Suction hose should be attached to pump on trailer. Use only enough suction hose to reach source of water supply and attach strainer on suction end. Place strainer entirely under water but not on bottom. If distance from water supply or lift is beyond capacity of pump on trailer, place portable gasoline-driven pump in line at water's edge. Attach drain hose using enough hose to

carry water well clear of trailer. Check fuel tanks, filling if necessary.

c. Start water pump, or both pumps if necessary, and fill boiler with two gages of water. Ignite oil burner and build up steam to 15 pounds. With all other valves closed, fireman opens steam valve to jacket of sterilizer one turn only, permitting jacket to heat slowly for 10 minutes. This valve is then opened wide permitting pressure in jacket to build up to 15 pounds gage.

7. Bath.—*a.* Men to bathe and receive clean clothing enter the receiving and undressing tent in groups of twelve. Here each man receives one canvas valuable bag with identification tag, one 24- by 30-inch net with one whale (net) pin attached. Each man places his valuables and contents of all pockets in the valuable bag, retains the identification tag which he hangs around his neck and turns the bag over to a processor who shall personally take them in lots of not to exceed twenty-four to the dressing and exchange tent and turns them over to another processor for distribution.

b. The men place all clothing except shoes in the net and securely close top of net with whale (net) pin. Each man should tie his shoes together by the laces and turn the net and shoes over to the processor. The men then proceed to the sterilization trailer for bathing, six men to each side of the trailer, as illustrated in figure 3. Five minutes are allowed each group in the receiving and undressing tent.

c. The processor delivers the nets to the sterilizer and the shoes to the medical examination tent.

d. The fireman controls the water to the showers. The temperature control valve on the hot water heater should be set at 110° Fahrenheit. The warm water is turned on for 1 minute for a rinse and cut off for 3 minutes for soaping. Hot water is then turned on for 2 minutes for rinsing. The hot water heater is then bypassed and cold water turned on for 1 minute. The men then proceed to the medical examination tent for drying, replacing of shoes, and medical examination by medical personnel attached to their organization. Seven minutes is allowed for this.

8. Sterilization of clothing.—*a.* Nets of clothing received from the processors are placed in the sterilizer basket by the sterilizer operators as illustrated in figure 4. Approximately 50 nets should constitute a load but under no circumstances should nets be packed tightly in the basket. No leather goods should be placed in the basket. The basket is then pushed into the chamber and the door closed and secured.

Sterilizer operator watches indicating thermometer until temperature reaches 240° Fahrenheit. (See fig. 5.) This time is noted as beginning of period of sterilization. During 20 minutes following, the temperature should rise slowly to 250° Fahrenheit. Close attention to temperature and timing are essential and operator should not leave sterilizer during this period.

b. At close of exposure period, sterilizer operator closes steam chamber valve and opens atmospheric exhaust valve until chamber gage shows zero pressure. He then closes atmospheric exhaust valve and

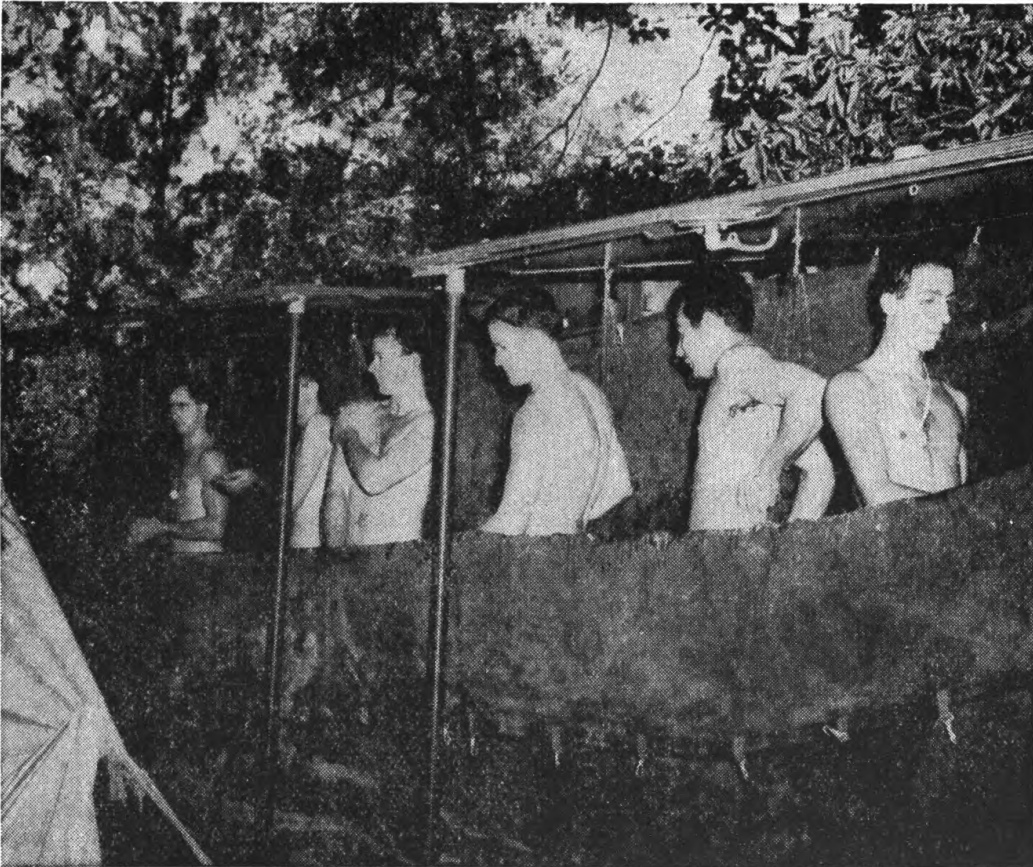


FIGURE 3.—Sterilization trailer.

opens vacuum exhaust and steam to ejector valves. This causes clean air to enter chamber through the air filter and to circulate through chamber to atmospheric exhaust, serving as a medium for conduction of vapors and odors from drying load to vent system. The period of drying should require 10 to 15 minutes if load has been properly arranged, that is, not tightly packed. During this period the chamber gage should indicate a vacuum of 5 or 6 inches. At close of drying period, close vacuum exhaust and steam to ejector valves. After

vacuum has been relieved through air filter and chamber gage shows zero, chamber door is opened. If noticeable vapor escapes when door is opened, period of drying should be increased.

c. Pull out basket, unload immediately, remove all clothes from nets and shake out wrinkles while still hot. Under no circumstances permit

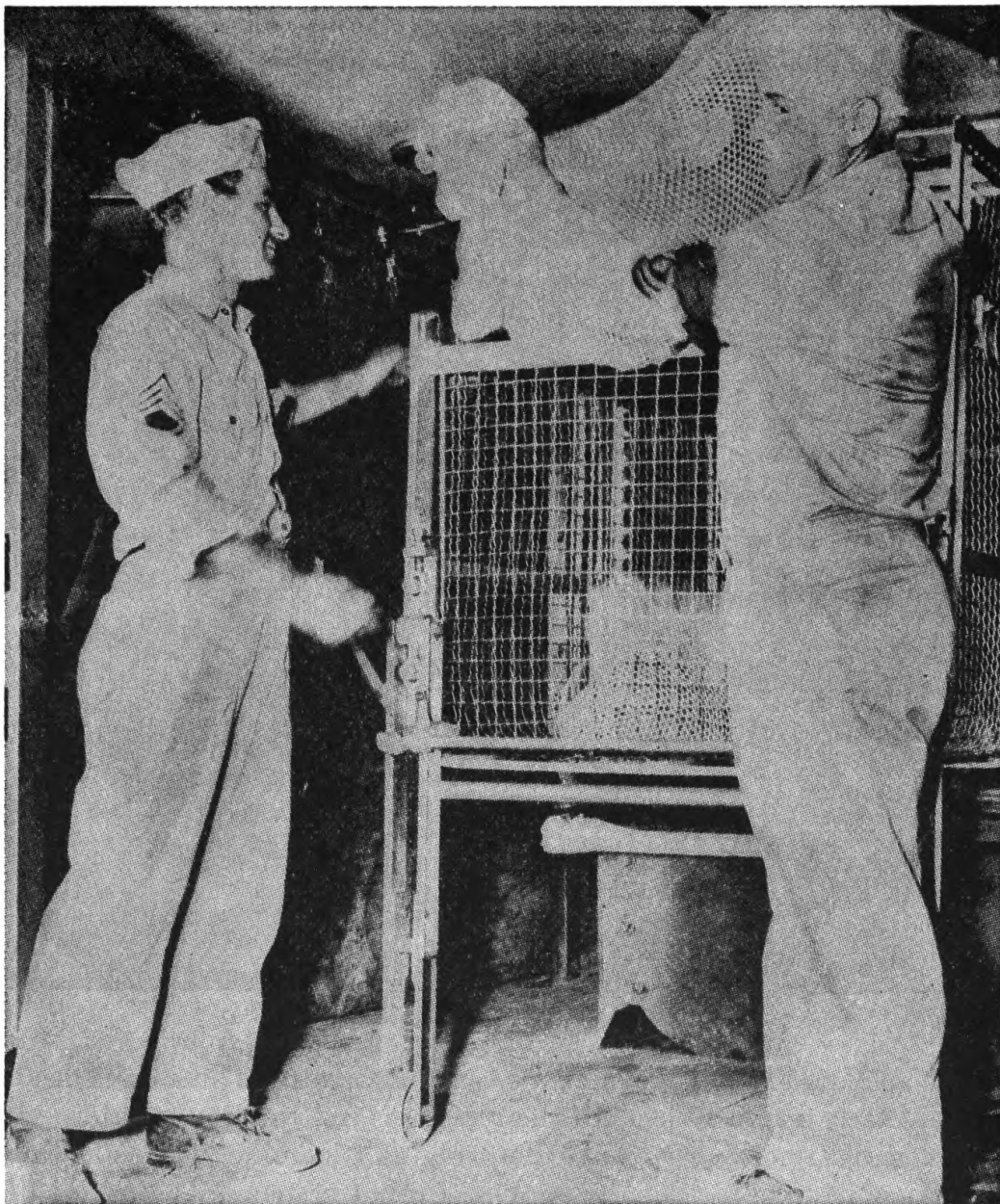


FIGURE 4.—Placing clothing in sterilizer basket.

clothes or other articles to remain in chamber unless door is wide open. Nets and pins will be returned to the undressing tent. Shut off all valves unless sterilizer is to be used again shortly.

9. Disposal of disinfected clothing.—*a.* The disinfected clothing will be sent to the salvage tent. Laborers will then assort the articles into the following classification:

- (1) Articles unfit for further use.
- (2) Articles needing laundering and repair.
- (3) Articles needing laundering and no repair.

The clothing will be tied in bundles according to its classification and marked.

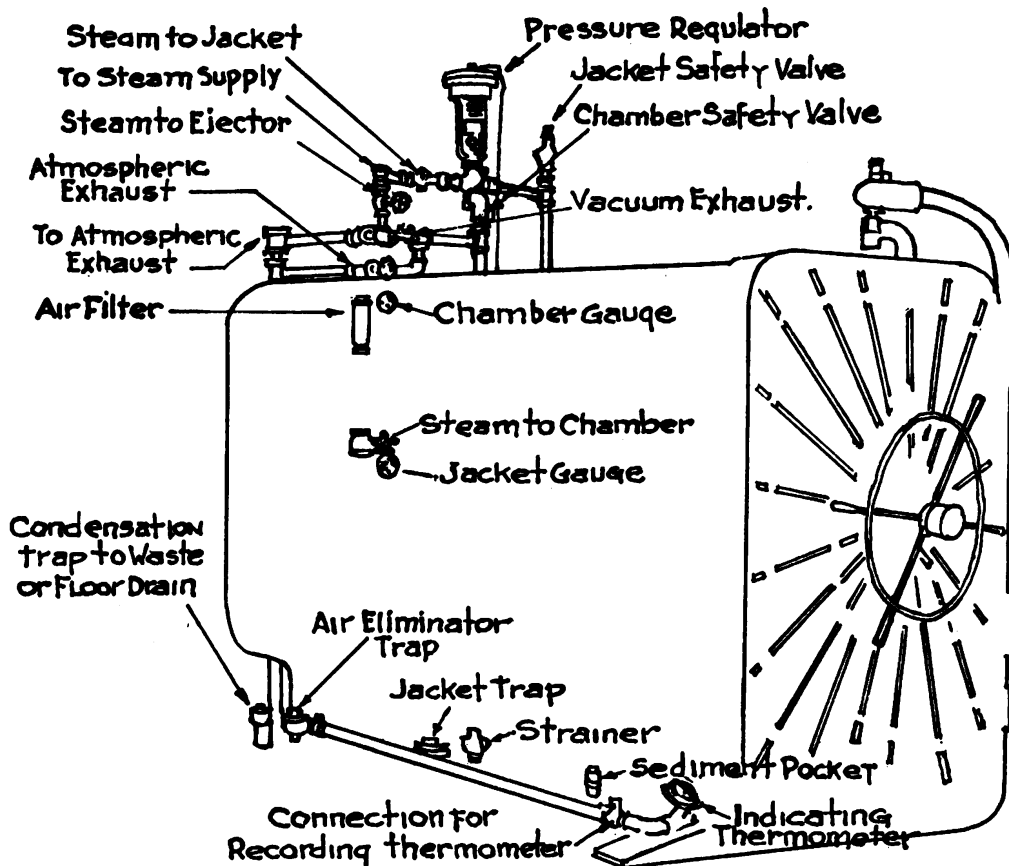


FIGURE 5.—Disinfector.

b. Bundles containing materials unfit for further use and materials needing laundering and repairs will be sent to the nearest salvage repair unit. Bundles containing materials which require laundering only will be sent to the mobile laundry unit where they will be laundered, resized, and returned to the bulk clothing storage tent where the stock control clerk will receive them and send them as needed to the issue tent for reissue.

10. Dressing and reclaiming valuables.—Men entering the issue tent from the medical examination tent will receive a com-

plete set of issue clothing from the stock clerks and proceed to the dressing and exchange tent. Any exchanges necessary will be taken care of by a processor. Here the men will dress and reclaim valuables. Processor will see that number on metal tag corresponds to number on valuable bag and be sure that all men leave tags and bags in tent and return them to undressing tent. Ten minutes is allowed for dressing and reclaiming valuables.

11. Discontinuing operations.—*a.* When discontinuing operations in freezing weather, all lines, traps, and hose must be completely drained. Do not drain boiler until same has cooled sufficiently to hold hand on end plate without burning; however, be sure to drain boiler to prevent freezing. If unit is to move, drain boiler to within $\frac{1}{2}$ inch of bottom of gage glass, unless boiler is cool enough to permit complete drainage. Remove stack; disconnect all hose lines and coil them in trailer body. Secure portable pump in trailer body and see that all tools are in place. Close sides of trailer body and lock corner jacks in place, making sure jacks are screwed in as far as they will go. Attach prime mover and secure brake hose and light cable. Remove rear wheel chocks. Do not remove wheel chocks before prime mover and brake hose have been attached. Raise front dolly wheels to highest position.

b. All supplies, clothing, and tentage will be loaded in the trucks and trailers attached to the company.

12. Operation in communications zone as part of quartermaster salvage repair battalion.—*a.* When operating in the communications zone as part of a quartermaster salvage repair battalion, there should be no necessity for processing men and using the showers or hot water heater. In all other respects the operation of the equipment is identical with that outlined in paragraphs 6 to 11, inclusive, except that only two tents are required, the bulk clothing storage tent at the front of the trailer and the salvage section tent at the rear of the trailer.

b. Salvage material to be sterilized is received in the bulk clothing storage tent. Processors place the materials loosely in nets, being sure no leather goods are among them, secure nets with whale pins and deliver nets to sterilizer.

c. Sterilizer operators process materials as outlined in paragraphs 6 to 11, inclusive, after which they are delivered to salvage section tent and nets and pins are returned to bulk clothing storage tent.

d. In the salvage section tent laborers assort the materials in the following classifications:

- (1) Materials unfit for further use.
- (2) Materials to be reclaimed.

The materials are then tied in bundles, clearly marked as to classification and delivered to the quartermaster company, laundry.

13. Repair and maintenance.—*a.* Daily, before heating sterilizer, clean bottom chamber with water, being sure plug screen is in place. Remove plug screen and clean all lint and dirt from pores of strainer. Strainers in all lines including oil line should be cleaned daily. Blow down boiler 1 gage twice during each operating shift. Test pop valve at beginning of each day shift. See that all moving parts are properly lubricated.

b. A small stock of spare parts and tools are supplied with each unit. Minor repairs and adjustments can be made in place by the electrician, general; the mechanic, general; or the steam fitter. Minor repairs and adjustments to vehicles can be made in place by the mechanic, automobile.

c. A 12 months' stockage of rear echelon repair parts for each sixteen units will be shipped automatically to the base depot for units serving overseas. Additional repair parts will be shipped only on requisition which will be sent forward through usual channels. No repair parts will be stocked for units serving in the continental United States.

[A. G. 062.11 (9-12-42).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

DISTRIBUTION:

R and H (2); IBn and L 10 (5).
(For explanation of symbols see FM 21-6.)

